

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: DORE, David James

SERIAL NO.: 10/580,705

ART UNIT: 3752

FILED: March 6, 2007

EXAMINER: Cernoch, S. M.

TITLE: MIST-SPRAYING APPARATUS

Amendment A: CLAIM AMENDMENTS

Claims 1 - 14 (canceled).

15. (new) A mist-spraying apparatus comprising:

an air-blowing means having an outlet conduit and an inlet conduit, said air-blowing means for blowing air through said outlet conduit into the enclosed space, said air-blowing means for drawing air from the enclosed space through said inlet conduit so as to circulate the air within the enclosed space;

an atomizing nozzle positioned within said outlet conduit;

a reservoir having a liquid therein;

a spray means for delivering the liquid from said reservoir to said atomizing nozzle such that atomizing particles emitted by said atomizing nozzle are entrained in the air blown by said air-blowing means so as to be evenly distributed in the enclosed space, said spraying means comprising a pump; and

a controlling means for controlling said air-blowing means and said spraying means, said controlling means cooperative with said air-blowing means and said atomizing nozzle for commencing operation of said air-blowing means prior to operation of said atomizing nozzle and for continuing operation of said air-blowing means after operation of said atomizing nozzle has

ceased so as to continue circulation of the air and any atomized particles therein in the enclosed space for a predetermined period of time.

16. (new) The mist-spraying apparatus of Claim 15, said atomizing nozzle positioned centrally within said outlet conduit.

17. (new) The mist-spraying apparatus of Claim 15, said outlet conduit having a rectangular cross-sectional profile.

18. (new) The mist-spraying apparatus of Claim 15, said outlet conduit defining a slot through which the air is blown by said air-blowing means.

19. (new) The mist-spraying apparatus of Claim 15, said atomizing nozzle being inset within said outlet conduit.

20. (new) The mist-spraying apparatus of Claim 15, said atomizing nozzle having a spraying tip inset by at least 25 millimeters and by no more than 40 millimeters into said outlet conduit.

21. (new) The mist-spraying apparatus of Claim 15, further comprising:
a source of steam in fluid communication with said air-blowing means such that steam from said source of steam is blown into the enclosed space through said outlet conduit.

22. (new) The mist-spraying apparatus of Claim 15, said atomizing nozzle comprising a 60° cone nozzle.

23. (new) The mist-spraying apparatus of Claim 15, said spraying means for spraying at least 11 liters of liquid at a pressure of 7 bar.

24. (new) The mist-spraying apparatus of Claim 15, said air-blowing means comprising a cylindrical fan.

25. (new) The mist-spraying apparatus of Claim 15, said liquid in said reservoir being a mixture of an oil and an aqueous solution.

26. (new) The mist-spraying apparatus of Claim 25, said oil selected from the group consisting of monopropylene glycol and monoethylene glycol.

27. (new) The mist-spraying apparatus of Claim 25, said mixture comprising less than one part oil to 100 parts of aqueous solution by volume.